

WHAT IS CLAIMED IS:

1. A sprayable elastomer composition comprising:

the reaction product of:

- 5 a) an aromatic isocyanate composition;
- b) a solids containing polyol including up to about 60.0 weight percent solids;
- c) a polyol composition including at least one polyol other than b);
- d) optionally one or more components selected from the group
- 10 consisting of catalysts, chain extenders, defoamers, surface-active agents, adhesion promoters, flame retardants, anti-oxidants, water scavengers, dyes, ultraviolet light stabilizers, pigments, fillers, thixotropic agents and mixtures thereof.

2. The sprayable elastomer of claim 1 wherein the solids content of all
- 15 components other than a) is up to 40.0 weight percent.

3. The sprayable elastomer of claim 1 wherein said aromatic isocyanate composition is selected from the group consisting of pure dipheylmethane diisocyanate, diphenylmethane diisocyanate prepolymer, carbodiimide-uretonimine modified diphenylmethane diisocyanate and mixtures thereof.

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4. The sprayable elastomer of claim 1 wherein said solids containing polyol b) is selected from the group consisting of graft polyols, polyisocyanate polyaddition polyols, polymer polyols, PHD polyols and mixtures thereof.

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5. The sprayable elastomer of claim 1 wherein b) is present in an amount of between about 5.0 weight percent to about 70.0 weight percent based on the total of all components other than a).

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6. The sprayable elastomer of claim 1 wherein said elastomer has a sprayed thickness upon curing of between about 0.2 mm to about 3.0 mm.

7. The sprayable elastomer of claim 1 wherein said elastomer has a density of less than 1000 kg/m³ after spraying.

8. The sprayable elastomer of claim 1 wherein elastomer has a hardness upon curing of less than or equal to 86 Shore A.

9. The sprayable elastomer of claim 1 wherein said elastomer has a tensile strength upon curing of at least 8.0 MPa.

10. The sprayable elastomer of claim 1 wherein the isocyanate index ranges from about 80 to about 120.

11. The sprayable elastomer of claim 1 wherein said elastomer includes a bismuth catalyst.

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12. A sprayable elastomer composition comprising:

the reaction product of:

a) an aromatic isocyanate;

b) a polyol composition including one or more polyols selected from the group consisting of polyether, low unsaturation polyether, polyester, polytetrahydrofuran, amine functional polyols and mixtures thereof, said polyol having a number average molecular weight of from about 100 to about 10,000;

c) optionally one or more components selected from the group consisting of catalysts, chain extenders, defoamers, surface-active agents, adhesion promoters, flame retardants, anti-oxidants, water scavengers, dyes, ultraviolet light stabilizers, pigments, fillers, thixotropic agents and mixtures thereof;

wherein said elastomer has an elongation after heat aging at 121° C for 500 hours of at least 150 percent.

13. The sprayable elastomer of claim 12 wherein said polyol composition (b) further comprises solids containing polyol.

14. The sprayable elastomer of claim 12 wherein said catalyst includes an organo-metallic catalyst.

15. The sprayable elastomer of claim 12 wherein said elastomer includes a
5 bismuth catalyst.

16. The sprayable elastomer of claim 12 wherein an ultraviolet light stabilizer is present in an amount ranging from 0.25 weight percent to 0.75 weight percent based on the total of all components other than a).

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18. The sprayable elastomer of claim 12 wherein said elastomer has a sprayed thickness upon curing of between about 0.2 mm to about 3.0 mm.

19. The sprayable elastomer of claim 12 wherein said elastomer has a density
15 of less than 1000 kg/m^3 after spraying.

20. The sprayable elastomer of claim 12 wherein elastomer has a hardness upon curing of less than or equal to 86 Shore A.

21. The sprayable elastomer of claim 12 wherein said elastomer has a tensile
5 strength upon curing of at least 8.0 MPa.

22. A method of making a decorative component in a mold cavity comprising the steps of:

a) applying an urethane based coating having a predetermined color to
10 said mold cavity;

b) applying an aromatic elastomer composition over said coating in said mold cavity and allowing said elastomer to at least partially cure to form an elastomeric layer; and

c) demolding the resulting object.

23. The method of claim 22 further comprising the step of introducing a polyurethane foam composition into said mold cavity and applying said foam composition to said elastomer layer to form a backing layer on said decorative object.

5 24. The method of claim 22 further comprising the step of applying a polyurethane foam composition to said elastomer layer after demolding said object.

26. The method of claim 22 wherein said aromatic elastomer comprises:

the reaction product of:

- 10 a) an aromatic isocyanate composition;
- b) a solids containing polyol including up to about 60.0 weight percent solids;
- c) a polyol composition including at least one polyol other than b);
- d) optionally one or more components selected from the group
- 15 consisting of catalysts, chain extenders, defoamers, surface-active agents, adhesion promoters, flame retardants, anti-oxidants, water scavengers, dyes, ultraviolet light stabilizers, pigments, fillers, thixotropic agents and mixtures thereof.

27. The method of claim 22 wherein said aromatic elastomer comprises:

the reaction product of:

a) an aromatic isocyanate;

5 b) a polyol composition including one or more polyols selected from the group consisting of polyether, low unsaturation polyether, polyester, polytetrahydrofuran, amine functional polyols and mixtures thereof, said polyol having a number average molecular weight of from about 100 to about 10,000;

 c) optionally one or more components selected from the group
10 consisting of catalysts, chain extenders, defoamers, surface-active agents, adhesion promoters, flame retardants, anti-oxidants, water scavengers, dyes, ultraviolet light stabilizers, pigments, fillers, thixotropic agents and mixtures thereof;

 wherein said elastomer has an elongation after heat aging at 121° C for 500 hours of at least 150 percent.

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28. A method of making a decorative object in a mold having a mold cavity;
said method comprising the steps of:

a) applying an aromatic elastomer composition over a surface of said mold cavity and allowing said elastomer composition to at least partially cure, thereby forming an elastomeric layer;

b) optionally introducing a polyurethane foam composition to said mold cavity and applying said foam composition to said at least partially cured elastomeric layer to form a backing layer on said object; and

c) demolding the resulting object.

29. The method of claim 28 further comprising the step of applying an urethane based coating to said mold cavity prior to step a).

31. The method of claim 28 further comprising the step of applying a mold release agent to said mold cavity prior to step a).

32. The method of claim 28 comprising the step of applying an urethane coating to said elastomer after demolding the object.

33. The method of claim 28 wherein said aromatic elastomer comprises:

the reaction product of:

a) an aromatic isocyanate composition;

b) a solids containing polyol including up to about 60.0 weight percent

5 solids;

c) a polyol composition including at least one polyol other than b);

d) optionally one or more components selected from the group
consisting of catalysts, chain extenders, defoamers, surface-active agents, adhesion
promoters, flame retardants, anti-oxidants, water scavengers, dyes, ultraviolet light
10 stabilizers, pigments, fillers, thixotropic agents and mixtures thereof.

34. The method of claim 33 wherein said aromatic elastomer comprises:

35. A sprayable elastomer composition comprising:

15 the reaction product of:

a) an aromatic isocyanate;

b) a polyol composition including one or more polyols selected from the group consisting of polyether, low unsaturation polyether, polyester, polytetrahydrofuran, amine functional polyols and mixtures thereof, said polyol having a number average
5 molecular weight of from about 100 to about 10,000;

c) optionally one or more components selected from the group consisting of catalysts, chain extenders, defoamers, surface-active agents, adhesion promoters, flame retardants, anti-oxidants, water scavengers, dyes, ultraviolet light stabilizers, pigments, fillers, thixotropic agents and mixtures thereof;

10 wherein said elastomer has an elongation after heat aging at 121° C for 500 hours of at least 150 percent.

35. A decorative object formed in a mold comprising:

an elastomeric outer layer formed from an aromatic elastomer composition;

15 a polyurethane foam backing layer bonded to said elastomeric outer layer;

and

an urethane based coating applied to said elastomeric outer layer.

36. An elastomeric article comprising:

the reaction product of:

a) an aromatic isocyanate composition;

5 b) a solids containing polyol including up to about 60.0 weight percent solids;

c) a polyol composition including at least one polyol other than b);

d) optionally one or more components selected from the group consisting of catalysts, chain extenders, defoamers, surface-active agents, adhesion
10 promoters, flame retardants, anti-oxidants, water scavengers, dyes, ultraviolet light stabilizers, pigments, fillers, thixotropic agents and mixtures thereof.

37. An elastomeric article comprising:

an in-mold paint; and

15 an elastomeric skin, wherein said skin comprises the reaction product of:

a) an aromatic isocyanate;

b) a polyol composition including one or more polyols selected from the group consisting of polyether, low unsaturation polyether, polyester, polytetrahydrofuran, amine functional polyols and mixtures thereof, said polyol having a number average
5 molecular weight of from about 100 to about 10,000;

c) optionally one or more components selected from the group consisting of catalysts, chain extenders, defoamers, surface-active agents, adhesion promoters, flame retardants, anti-oxidants, water scavengers, dyes, ultraviolet light stabilizers, pigments, fillers, thixotropic agents and mixtures thereof;

10 wherein said elastomer has an elongation after heat aging at 121° C for 500 hours of at least 150 percent.